

MAKIN, S.M.; SUDAKOVA, V.S.

Chemistry of unsaturated ethers. Part 15: Telomerization
of vinyl ethyl ether with acetaldehyde acetal. Synthesis
of 1-alkoxypolyenes. Zhur.ob.khim. 32 no.10:3161-3166
O '62. (MIRA 15:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii
imeni M.V. Lomonosova.
(Ethers) (Acetaldehyde) (Polymerization)

MAKIN, S.M.; ROZHKOV, I.N.; SUDAKOVA, V.S.

Chemistry of unsaturated ethers. Part 16: Telomerization
of 1-alkoxy-1,3-dienes with acetals of unsaturated aldehydes.
Zhur.ob.khim. 32 no.10:3166-3170 O '62. (MIRA 15:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii
imeni M.V. Lomonosova.

(Acetals) (Unsaturated compounds) (Polymerization)

SUDAKOVA, V.V.

Use of royal jelly preparation in lesion of the locomotor
apparatus of children suffering from insufficient nutrition.
Inform.biul.o mat.moloch. no.3:59-61 '62. (MIRA 16:2)

1. Gosudarstvennyy nauchno-issledovatel'skiy detskiy ortopedicheskiy
institut imeni G.I. Turnera (dir. - prof. M.N. Goncharova).
(ROYAL JELLY—THERAPEUTIC USE) (LOCOMOTION, DISORDERED)
(DEFICIENCY DISEASES)

LUNEVA, Z. S., kand. sel'khoz. nauk; SUDAKOVA, Ye. A., ml. nauchn. sotr.; POPOV, V. A., st. nauchn. sotr.

[Growing ornamental tree and shrub seedlings; for town landscaping in the central zone of the European Part of the R.S.F.S.R.] Vyrashchivanie sazhentsev dekorativnykh derev'ev i kustarnikov dlia ozeleneniia gorodov srednei polosy Evropeiskoi chasti RSFSR. Moskva, Stroiizdat, 1965. 170 p. (MIRA 18:8)

1. Sektor ozeleneniya gorodov Akademii kommunal'nogo khozyaystva im. K.D.Pamfilova (for Luneva, Sudakova).

SMORKALOV, V.T., red.; KARDASH, F.G., st. varshchik, red.;
IVANOVA, V.Ya., red.; SUDAKOVA, Yu., red.; VASIL'KOVICH,
L.A., red.; GETLING, Yu., red.

[Plant of miraculous transformations; everyday work of
the employees of the Tavda Hydrolysis Plant.] Zavod chu-
desnykh prevrashchenii; trudovye budni kollektiva Tavdin-
skogo gidroliznogo zavoda. Sverdlovsk, Sredne-Ural'skoe
knizhnoe izd-vo, 1964. 50 p. (MIRA 18:4)

1. Direktor Tavdinskogo gidroliznogo zavoda Ural (for
Kardash). 2. Predsedatel' zavodskogo komiteta Tavdinskogo
gidroliznogo zavoda, Ural (for Ivanova). 3. Sekretar'
Vsesoyuznogo Leninskogo Kommunisticheskogo soyuza molodezhi
(for Sudakova). 4. Nachal'nik planovogo otdela Tavdinskogo
gidroliznogo zavoda, Ural (for Vasil'ovich).

CHAIKOV, Yu. P.

Sediments in the estuary region of the Danube and their relationship
with hydrological processes. Trudy GOIN no. 78:76-92 '64.
(MIRA 17:10)

SUDAKOVA, Z. V.

Dissertation: "The Role and Importance of Wasps in the Plant Cover of Moskovskaya Oblast."
Cand Biol Sci, Moscow Oblast Pedagogical Inst, 30 Jun 54. (Vechernyaya Moskva, Moscow,
22 Jun 54)

SO: SUM 318, 23 Dec 1954

SUDAKOVICH, D. I.

"Threshold of the Optic Canal and Its Role in the Life of the Organ of Vision." Sub 19 Oct 51, Acad Med Sci USSR.

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SO: Sum. No. 420, 9 May 55

SUDAKOVICH, D.I., inzhener.

Immediate tasks in the field of power tool production. Mekh.stroi.
4 no.5:21-24 My '47. (MLRA 9:2)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut Stroydormash,
Lenfilial.
(Power tools)

SUDAKOVICH, D.I.

Elektrifikatsirovannyi ruchnoe instrument. Dop. v kachestve uchebn. posobiia dlia uchashchikhsia tekhnikumov stroit. i dorozhnogo mashinostroeniia. Moskva, Mashgiz, 1950. 227 p. illus.

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DLC: TJ1195.S8

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

BERNADSKIY, G.I.; SUDAKOVICH, D.I.; GRINTSER, S.A., inzhener, redaktor;
KUZNETSYN, G.I., inzhener, retsenzents; PETRUN'KIN, L.P., laureat
Stalinskoy premii, inzhener, retsenzents; POL'SKAYA, R.G., tekhnicheskii redaktor

[Pneumatic hand-operated instrument] Pnevmaticheskii ruchnoi instrument. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroitel'noi lit-ry, 1952.

(MLRA 9:3)

(Pneumatic tools)

[MICROFILM]

SUDAKOVICH, D.I., SHESTINSKIY, N.N.

Woodworking Machinery

Electric band polishing machine for wood type 1-106. Mekh. stroi. 9 no. 4, 1952.

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SUDAKOVICH, D.I.

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stroitel'nyi ruchnoi instrument. Moskva, Mashgiz, 1954. 138 p.
(MLRA 7:11D)

SUDAKOVICH, D.I.; BERNADSKIY, G.I.; PETRUN'KIN, L.P., inzhener, laureat
Stalinskoy premii, retsenzent; SHESTINSKIY, N.N., inzhener, redaktor.

[Manual on mechanized hand tools] Spravochnik po mekhanizirovannomu
ruchnomu instrumentu. Leningrad, Gos. nauchno-tekhn. izd-vo mashinostroit.
i sudostroit. lit-ry [Leningradskoe otd-nie] 1954. 335 p. (MLRA 7:6)
(Tools)

OSIPOV, Petr Osipovich; SUDAKOVICH, D.I., inzhener, nauchnyy redaktor;
ROTENBERG, A.S., redaktor izdatel'stva; PUL'KINA, Ye.A., tekhnicheskiiy redaktor

[New method of working frozen ground] Novyi sposob razrabotki
merzlykh gruntov. Leningrad, Gos.izd-vo lit-ry po stroit. i arkhit.,
1957. 25 p. (MIRA 10:9)
(Frozen ground)

SEDAKOVICH,, inzhener;, inzhener.

investigating pneumatic rotary engines. Sbor.trud.Kharkovskiy
Lentil.
(pneumatic machinery)

SUDAKOVICH, D.I., inzh.

Experimental investigation of tamper operated by separate pneumatic pulsators. Sbor.trud.VNIISTroidormash.Lenfil. no.16:90-116
'57. (MIRA 12:7)

(Road machinery) (Pneumatic tools)

VOYTEKUNAS, Stanislav Stefanovich; ZUYEV, F.P., nauchnyy red.; SUDAKOVICH,
D.I., nauchnyy red.; KARPOV, V.V., red.izd-va; PUL'KINA, Ye.A.,
tekhn.red.

[Designing reinforced concrete elements; from the experience of
planning organizations in Leningrad] Konstruirovaniye zhelezo-
betonnykh elementov; iz opyta proektnykh organizatsii Lenin-
grada. Leningrad, Gos.izd-vo lit-ry po stroit., arkhitekt. i stroit.
materialam, 1959. 210 p. (MIRA 12:4)
(Reinforced concrete)

BERNADSKIY, G.I., inzh.; SUDAKOVICH, D.I., inzh.; MEYTUS, M.E., nauchnyy
red.; ZHURAVSKIY, N.A., red.izd-va; VORONETSKAYA, L.V., tekhn.red.

[Machinery for finishing operations in construction; a manual]
Mashiny i mekhanizirovannye instrumenty dlia otdelochnykh rabot
v stroitel'stve; spravochnik. Leningrad, Gos.izd-vo lit-ry po
stroit., arkhitekt. i stroit.materialam, 1960. 212 p.

(MIRA 13:12)

(Building machinery)

BESPALOV, Ivan Vasil'yevich; SUDAKOVICH, D.I., inzh., nauchnyy red.;
REYZ, M.B., red. izd-va; CHERKASSKAYA, F.T., tekhn. red.

[Organization of transportation in construction] Organizatsia
postroenogo transporta. Gosstroizdat, 1961. 175 p.

(MIRA 15:8)

(Transportation) (Building materials--Transportation)

SUDAKOVICH, David Isaakovich, inzh.; BERNADSKIY, Georgiy Ivanovich, inzh.;
KUZNETSYN, G.I., kand. tekhn. nauk, retsenzent; SHESTINSKIY, N.N.,
inzh., red.; DUDUSOVA, G.A. red. izd-va; SPERANSKAYA, O.V., tekhn.
red.

[Manual on portable power tools] Spravochnik po mekhanizirovannomu
ruchnomu instrumentu. Izd.2., dop. i perer. Moskva, Gos.nauchno-
tekhn. izd-vo mashinostroit. lit-ry, 1961. 335 p. (MIRA 14:6)
(Power tools)

REBROV, A.S., inzh. [deceased]; USFENSKIY, V.P., inzh.; PLESHKOV, D.I., kand. tekhn. nauk; BELEN'KIY, V.I., inzh.; BERNADSKIY, G.I., inzh.; VALUTSKIY, I.I., inzh.; BAZANOV, A.F., kand. tekhn. nauk; KOGAN, I.Ya., kand. tekhn. nauk; RATNER, A.I.; VOROB'YEV, A.A., inzh.; BAUMAN, V.A., kand. tekhn. nauk; NOSENKO, N.Ye., kand. tekhn. nauk; FOKIN, M.V., inzh. [deceased]; VINOGRADOV, G.V., inzh.; GUSAKOV, M.A., inzh.; SUDAKOVICH, D.I., inzh.; Prinimali uchastiye: SIGAL', Ya.Ye., inzh.; TITOV, M.A., inzh.; OGIEVICH, V.Ya., kand. tekhn. nauk; ZIMIN, P.A., kand. tekhn. nauk, retsenzent; LAPIN, F.A., inzh., retsenzent; PETROV, N.M., kand. tekhn. nauk, retsenzent; RYAKHIN, V.A., kand. tekhn. nauk, retsenzent; KHOLIN, N.A., inzh., retsenzent

[Construction machinery; a reference manual] Stroitel'nye mashiny; spravochnik. Izd.3., perer. i dop. Moskva, Mashinostroenie, 1965. 788 p. (MIRA 18:6)

SUDAKOVICH, G.I.

[Manual of mechanized instruments] Spravochnik po mekhanizirovannomu
instrumentu. Moskva, Mashgiz, 1954. 336 p. (MLBA 7:12D)

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"Kuzbass Improves Backfilling Equipment," Mekhanizatsiya Trudoyemkikh i Tyazhelykh Rabot, No 10, Oct 1950.

Translation W-15769, 12 Dec 50

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SUDAKOVICH, L.S., inzhener; BERGANOV, A.A., inzhener.

Hardening the filling mass. 'Ugol' vol.28 no.11:40-42 N '53. (MIRA 6:11)

1. Gosudarstvennoye ob'yedineniye kamennougol'noy promyshlennosti Kuznetskogo
rayona. (Mining engineering) (Concrete)

3. RUMIN, L. S.

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(Izvo Uzol'nov Prom-sti SSSR. Tekhn. Upr. Tsent. In-t Tekhn. Informatsii. Vest.
Nauch.-Issled. In-t Po Bezopasnosti Rabot V Gornoy Prom-sti VestNIK).
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622.313:622.12+622.37

50: Knizhnaya, Letopis, Vol. 1, 1955

SUDAKOVICH, L.S.

NUROK, G.A.; SEREDA, B.K.; SUDAKOVICH, L.S.

Problem of the technology of filling-in work in mines. Ugol' 29
no.8:44-46 Ag '54. (MIRA 7:8)

1. Moskovskiy gornyy institut im. I.V.Stalina (for Nurok). 2. In-
stitut Unipromed' (for Sereda). 3. Kuzbasspetstrest (for Sudakovich).
(Coal mines and mining)

CHAKOVA, N.

"Introducing an eight-section process." p. 3L. (CDOIEU, Vol. 1, no. 2, Feb. 1953, Lodz, Poland)

SO: Monthly List of East European Accessions, L. C., Vol. 3, No. 5, May 1954, Uncl.

1. Voprosy Obshchestvennoy i Nauchnoy Svedomosti. Izdatel'stvo Fiziki i Profitsa

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SUDALIN, M.

Important stimulus for improving the work of lumbering organizations. Sel'.stroil. 10 no.3:9 Mr '55. (MIRA 8:6)

1. Ekonomist planovo-finansovogo otdela Glavkolkhosstroya Ministerstva gorodskogo i sel'skogo stroitel'stva RSFSR.
(Lumbermen) (Wages)

SUDALIN, M., ekonomist.

Progressive logging camp. Sel'.stroj. 11 no.2:7 F '56. (MLRA 9:7)

1.Glavkolkhozstroy Ministerstva gorodskogo i sel'skogo stroitel'stva
RSFSR.

(Arzamas--Lumber camps)

RUSSIA, N. ...

Collective farms in ... the fortieth anniversary
of the Great October Socialist Revolution in proper manner. Sel'.
str. 11 no. 4:5 '56 ... '57 ... (MLRA 10:6)
(Yakovlev-Construction Industry)

SUDALIN, M.

Practices of the "Pravda" Collective Farm. Sel'.stro1. 13
no.11:14 N '58. (MIRA 11:12)

1. Starshiy ekonomist Glavkolkhozstroya Ministerstva sel'skogo
khozyaystva RSFSR.
(Nokshan District--Farmhouses)

SUDALIN, M.

Using lumber industry wastes. Sel'.stroï. 13 no.12:13-14
D '58. (MIRA 12:1)

1. Starshiy ekonomist Glavkolkhozstroya Ministerstva sel'skogo
khozyaystva RSFSR.
(Wood waste) (Farm buildings)

SUDALIN, M., ekonomist

Technical training of collective farm builders. Sel'.stro1.
13 no.3:29-30 Mr '59. (MIRA 12:5)
(Chuvashia--Building trades--Study and teaching)

funds
SUDAL'SKAYA, T.K., assistant

Developing public consumption during the large-scale building
of a communist society. Uch. zap. LIIZHT no.3:47-61 '62.
(MIRA 17:3)

SHALLOTT, L.A., resident

Developing public consumption funds during the large-scale
building of a communist society. Uch. zap. LITENT no.3:47-
61 tel. (MIRA 17:3)

SMITH, G. W. JR., C.D.

On the approximation of linear ternary forms. Bul Inst.
Math 25 no.4:13-17. Sl-Ag '63.

1. Department of Mathematics, Bucharest Polytechnic Institute.

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Sudan, Gabriel. Sur une propriété des nombres epsilon.
 Acad. Roum. Bull. Sect. Sci. 27, 258-264 (1947).

The following theorem has been proved by G. Hessenberg
 [Jber. Deutsch. Math. Verein. 16, 130-137 (1907)] and
 E. Jacobsthal [Math. Ann. 66, 145-194 (1908)]. If for one
 ordinal number α with $1 < \alpha < \beta$ the relation $\alpha^\beta = \beta$ holds,
 then for every number γ with $1 < \gamma < \beta$ the relation $\gamma^\beta = \beta$
 also holds. This then means that β is an ϵ -number. The
 author gives a new proof of this theorem and derives from
 it the following two consequences. (1) If γ is a transfinite
 ordinal number and $\alpha > 1$, $\beta > 1$ are two ordinal numbers
 satisfying the relation $(\alpha^\beta)^\gamma = \alpha^{\beta\gamma}$, then γ is an ϵ -number.
 (2) If γ is a limit number and if there exist two ordinal
 numbers α, β with $1 < \alpha < \gamma$, $1 < \beta$, such that $\alpha\gamma = \beta\gamma$, then γ
 is an ϵ -number.

A. Rosenthal (Lafayette, Ind.).

Source: Mathematical Reviews.

Vol 10 No. 4

Sudan, Gabriel

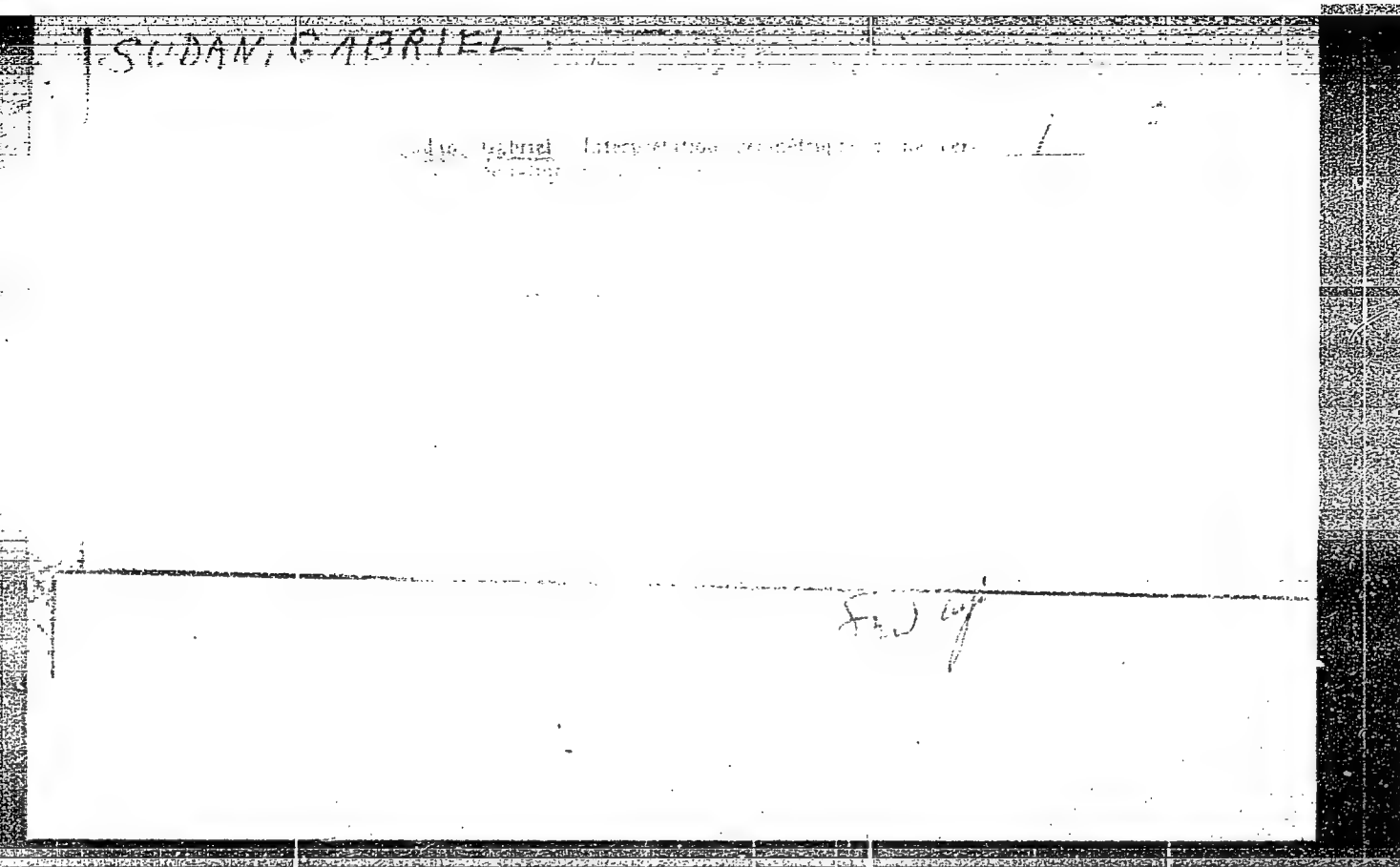
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Vol 1

10



SUDAN, G.

On the law of the best approximate vlaue. In German. p. 429.

REVUE DE MATHEMATIQUES PURES ET APPLIQUEES. JOURNAL OF PURE AND APPLIED
MATHEMATICS. (Academia Republicii Populare Romine) Bucaresti. Rumania.
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Observations on two arithmetical theorems. Bull math Rum 6 no.3/4:
235-238 '62 [publ. '64].

1. Submitted January 16, 1964.

SUDANOV, Ye.Ya.

Correction to E.IA.Susanov's article "Conditions for the thermo-
dynamic invariance of the rectification process." Zhur.fiz.khim.
36 no.5:1123 My '62. (MIRA 15:8)
(Distillation, Fractional) (Susanov, E.IA.)

SUDAR, J.

SUDAR, J Economic importance of advertising in the chemical industry.

Vol. 4, No. 8, Aug. 1955

KEMIJAU INDUSTRIJI

SO: Monthly List of East European Accessions, (EEAL), IC, Vol. 5, No.3
March, 1956

SELEZNEV, Yu.; SEN'KO, A.; SUDARCHIKOV, V.

Testing of engines. Mor. flot 22 no.6:25 Je '62. (MIRA 15:7)

1. Starshiy inspektor rechnogo Registra RSFSR (for Seleznev).
 2. Upolnomochennyy Ministerstva rechnogo flota po priyemke flota pri Sretenskom sudostroitel'nom zavode (for Sen'ko).
 3. Nachal'nik otдела tekhnicheskogo kontrolya Sretenskogo sudostroitel'nogo zavoda (for Sudarchikov).
- (Marine engines--Testing)

ACCESSION NR: AP4041637

S/0114/64/000/006/0008/0011

AUTHOR: Kuznetsov, A. L. (Candidate of technical sciences); Sudarev, A. V.
(Engineer)

TITLE: Aerodynamics and heat transfer of a flat turbulent jet spreading along a
plane surface

SOURCE: Energomashinostroyeniye, no. 6, 1964, 8-11

TOPIC TAGS: gas turbine, gas turbine plant, gas turbine cooling

ABSTRACT: Formulas and graphs are presented for approximating the width of
the boundary (near-wall) layer, length of initial section, heat-transfer coefficient,
and velocity distribution in the boundary and free-turbulence zones. Laminar and
transition sections of the boundary layer are neglected. The case of a semi-
constrained jet in a cumulative stream and of a submerged jet are considered.
Published data is used throughout and compared with some experimental results

Card 1/2

ONE

Diagram of the temperature of the wall of the flame tube of the
combustion chamber of a gas turbine system. Izv. Akad. Nauk SSSR
Eng. 1977 Ag 145. (MIRA 18:10)

KUZHNETSOV, L.A., doktor tekhn.nauk; SUDAREV, A.V., inzh.

Study of blade-type mixers of combustion chambers with
three whirlers. Energomashinostroenie 11 no.10:17-19
O '65.

(MIRA 18:11)

ACC NR: AR6035220

SOURCE CODE: UR/0274/66/000/008/B087/B087

AUTHOR: Narezhnyy, E. G.; Sudarev, B. V.

TITLE: Effects of certain heat and design parameters on the degree of overheating of a single micromodule cooled under natural convection conditions

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs; 8B613

REF SOURCE: Tr. Leningr. korblestroit. in-ta, vyp. 47, 1965, 81-90

TOPIC TAGS: parameter, heat conductivity, heat transfer, module, micromodule, printed plate, printed circuit

ABSTRACT: The micromodule, fastened vertically to a printed plate, contains one heat-releasing element connected to the plate by wire leads; the plate is cooled due to natural convection. The differential equation of heat conductivity for this design is determined in a general form and the temperature of the heat releasing element is expressed in terms of basic thermal and design parameters M. An analysis of the relationships shows that since the heat transfer from the module is limited by conditions of external heat transfer from the surface, more effective measures of

Card 1/2

UDC: 621.396.6-181.5

AUTHORS: Ozerov, M., Skorokhodova, L. and Sudarev, G. (Engineers). ^{66-2-3/22}

TITLE: Experimental 3-waggon refrigerated railway unit. (Opytnaya trekhvagonnaya kholodil'naya sektsiya).

PERIODICAL: "Kholodil'naya Tekhnika" (Refrigeration Engineering), 1957, No.2, pp. 11 - 17 (USSR).

ABSTRACT: An experimental 3-waggon refrigerated rail unit has been built by the Bryansk engineering works according to plans produced by the Central Design Office, Refrigeration Engineering, and the Riga electrical machinery works. The waggons are intended for transportation of low temperature freight of fresh vegetables and fruit in summer as well as in winter and for this purpose a system of machine refrigeration and of electric heating is provided, which should be able to ensure an inside air temperature between -20 and +14 C for ambient temperatures of +30 to -45 C. In addition, the refrigerating units are designed to be suitable for preliminary cooling of vegetables and fruit from 25 to 4 C in two days. Each of the waggons is fitted with a machine section comprising the refrigeration unit; in addition, waggon No.2 contains a Diesel generator unit and waggon No.3 contains space for two operators. The waggon bodies are metallic of welded construction. The main data

Card 1/3

Experimental 3-waggon refrigerated railway unit. (Cont.)

are summarised in Table 1, p.12. The refrigeration equipment is described in some detail and so are the results of stationary and operational tests of this refrigerated unit. In the stationary tests the heat transfer coefficients of the waggon walls were as follows: waggon No.1, 0.35, waggon No.2, 0.42, Waggon No.3, 0.37 kcal/m²hour °C; the rated value was 0.4 kcal/m²hour °C. The delivery of the fans in Waggon No.1 for a temperature of -20 °C equalled 5500 m³/hour and the respective values for waggons Nos.2 and 3 were 5870 and 5100 m³/hour. The delivery of the condenser fans was about 10 000 m³/hour. The required temperature of -20 °C for an ambient temperature of +30 °C was obtained only in the waggons Nos. 2 and 3 and for this, continuous running of the refrigeration machinery was necessary, which indicates that their rating is not high enough. The automatic controls operated satisfactorily. The running tests were made on the line Bryansk-Erevan-Batum-Moscow and during these tests the refrigeration equipment operated fully satisfactorily except for the electric contact thermometers, the pointers of which oscillated strongly during movement of the waggons, leading to frequent switching on and off of the drives of the compressors and the fans. During

Card 2/3

Experimental 3-waggon refrigerated railway unit. (Cont.)
average running speeds (30 to 50 km/hour) the rate of
feeding fresh air was 300 - 500 m³/hour and 100 - 300
m³/hour in the case of the circulators being switched off.
There are 4 figures and 2 tables.

AVAILABLE:

Card 3/3

OZEROV, M., inzh.; SKOROKHODOVA, L., inzh.; SUDAREV, G., inzh.

Experimental refrigerator cars of increased capacity [with
summary in English]. Khol.tekh. 35 no.6:38-42 N-D '58.
(MIRA 12:1)

1. Bryanskiy mashinostroitel'nyy zavod.
(Refrigerator cars)

SOV/137-58-12-24310

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 12, p 54 (USSR)

AUTHOR: Sudarev, M. D.

TITLE: Intensification of Electric Melting of Ores and Improvement in Technology at the Pechenganikel Kombinat (Intensifikatsiya elektroplavki rud i uluchsheniye yeye tekhnologii na kombinat Pechenganikel')

PERIODICAL: Materialy Soveshchaniya po vopr. intensifik. i usoversh. dobychi i tekhnol. pererabotki medno-nikelevykh i nikelovykh rud. 1956 g. Moscow, Profizdat, 1957, pp 166-174

ABSTRACT: An examination is made of the procedure for melting sulfide Ni ores to matte in electric arc furnaces at the Pechenganikel Kombinat. The 61% increase in the useful power of the furnaces has permitted a considerable rise in fusion and a 22% reduction in unit consumption of electrical energy. The Ni content in the waste slags was reduced by 42%. The presence of fines and of 2-2.8% moisture in the ore results in expulsions of ore from the bath with damage to the roof; this made it necessary to sinter the ore fines and concentrates and melt them under more intensive conditions.

Card 1/1

Ye. Z.

OSIPOV, Ya.Kh.; TALOVIKOV, G.I.; SEREBRYANNY, Ya.L.; SUDAROV, M.D.

Certain problems in the electric smelting of sulfide ores. TSvet.
met. 33 no.7:28-31 J1 '60. (MIRA 13:7)

1. Kombinat Pechenganikel'.
(Sulfides--Electrometallurgy)

SUDAREV, M.D.; KOMNATNYI, N.A.; BERDENNIKOV, Ye.V.; SOBOLEV, N.V.

Putting into operation a 32000 kva charge-resistance furnace.
TSvet. met. 34 no.3:23-31 Mr '61. (MIRA 14:3)
(Electric furnaces)

SUDAREV, M.P.

Differential equations for the multiple distribution curves
(constants of relative volatility) of two components of the
ternary system solution - nonideal vapor. Zhur. fiz. khim.
38 no.5:1084-1090 My '64. (MIRA 18:12)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.
Submitted Dec. 30, 1962.

PASHKOVA, I.M.; SUDAREV, O.N.

Response of the lake frog (*Rana ridibunda* Pall.) to temperature under natural and experimental conditions. Dokl. AN SSSR 135 no.6: 1512-1515 D '60. (MIRA 13:12)

1. Institut tsitologii Akademii nauk SSSR i Dorozhnaya protivochumnaya stantsiya Tashkentskoy zheleznoy dorogi. Predstavleno akademikom Ye.N. Pavlovskim.

(FROGS)

(BODY TEMPERATURE--REGULATION)

1. Monthly List of Russian Accessions, Library of Congress, October 1957, Uncl.

The Monthly List of Russian Accessions

is a publication of the Library of Congress, which provides a list of new acquisitions. It is published monthly, and is available in microfiche and microfilm formats. The Monthly List of Russian Accessions is a valuable resource for researchers interested in Russian literature and culture.

9. Monthly List of Russian Accessions, Library of Congress, October 1957, Uncl.

SUDAREV, P.M., (Novosibirsk); TENMBEKOV, S.D. (Novosibirsk).

Experiments with metals. Khim.v shkole 10 no.3:50-55 My-Je '56.
(MLBA 9:8)

(Chemistry--Experiments) (Metals)

SUDAROV, P.M., dotsent; ATAYEV, A.S., dotsent.

Industrial training of students. Politekh. sbuch. no.1:62-65 Ja '57.
(Technical education) (MIRA 10:4)

AUTHOR: Sudarev, P.M., Dotsent 3-58-5-20/35

TITLE: Preparing for the New Enrollment (Gotovyas' k novomu priyemu)

PERIODICAL: Vestnik Vysshey Shkoly, 1958, Nr 5, pp 67 - 68 (USSR)

ABSTRACT: In 1957, the vuzes of Novosibirsk admitted a considerable number of persons having practical experience or who had been demobilized from the Army. The author points out the zeal with which this group of the students has devoted itself to academic work. The examination data of the Novosibirsk Agricultural and Pedagogical Institutes prove that the freshmen from factories are not behind those just graduated from school. The preparatory courses have, no doubt, played a certain role in this respect, yet the author stresses the necessity of maintaining the present entrance examination standards.

ASSOCIATION: Novosibirskiy pedagogicheskiy institut (Novosibirsk Pedagogical Institute)

AVAILABLE: Library of Congress

Card 1/1

SUDAREV, P.M.; BOYKO, V.S.; ARNAUTOV, N.V.

Amount of certain trace elements in soils and plant ash in
Novosibirsk Province. Izv.Sib.otd.AN SSSR no.11:93-95 '59.
(MIRA 13:4)

1. Novosibirskiy sel'skokhozyaystvennyy institut i Institut
geologii i geofiziki Sibirskogo otdeleniya AN SSSR.
(Novosibirsk Province--Trace elements) (Soil chemistry)
(Plants--Chemical analysis)

SUDAREV, V.V., inzh.

Standard plan of a glass block shop. Stek. i ker. 20 no.4:34-35
Ap '63. (MIRA 16:3)

1. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy
stekol'noy promyshlennosti.
(Glass factories) (Glass construction)

L 20642-66 ENI(1)/ENT(m)/ENP(w)/EPF(n)-2/1/ENP(t) IJP(c) JD/WH/JC/GJ

ACC NR: AP6010405

SOURCE CODE: UR/0126/66/021/003/0388/0395

AUTHOR: Sudareva, S. V.; Buynov, N. N.; Vozilkin, V. A.; Romanov, Ye. P.; Rakin, V. G.

ORG: Institute of Metal Physics, AN UkrSSR (Institut fiziki metallov AN UkrSSR)

38

TITLE: The relationship between the characteristics of superconductivity and structure of zirconium-4% niobium alloy

13

SOURCE: Fizika metallov i metallovedeniye, v. 21, no. 3, 1966, 388-395

TOPIC TAGS: zirconium alloy, niobium containing alloy, alloy structure, alloy superconductivity

ABSTRACT: Zirconium-base alloy containing 4% niobium melted from 99.8%-pure zirconium and 99.4%-pure niobium, rolled at 600-700C into bars, homogenized at 1280C for 50 hr, annealed at 1200C and water quenched, aged at 550C for up to 1000 min, and rolled at 550C with a reduction of 93% was tested for the effect of structure on the characteristics of superconductivity. It was found that alloy annealed at 1200C is not superconductive at 4.2K. Aging of annealed alloy at 550C for 15 min brings about a precipitation of the finely dispersed β -phase and the alloy becomes superconductive with a critical current density of 5000 amp/cm². The β -phase particles precipitate mainly at the boundaries of the martensitic needles and form a system of superconductive fibers in the nonsuperconductive matrix. Such a structure appears to have a favorable effect on the magnitude of the critical current density. Prolonged aging of annealed alloy has no additional effect on the critical current

Card 1/2

UDC: 537.312.62:548.4

L 20642-66

ACC NR: AP6010405

density. Alloy which, after annealing, was rolled at 550C also became superconductive after aging at 550C for 3 hr, but its critical current density was found to be 50,000 amp/cm² (one order higher than that of alloy aged without rolling). The structure of alloy in this condition is distinguished by a network of dislocations decorated by rather large (50—100 Å) particles of β -phase and forming a system of superconducting fibers. Such a structure appears to be a specific feature of all niobium-zirconium alloys with high values of critical current density. Orig. art. has: 4 figures. [DV]

SUB CODE: 20, 11/ SUBM DATE: 05Jul65/ ORIG REF: 004/ OTH REF: 008/ ATD PRESS: 4226

Card 2/2 *PK*

12.5100

31569

S/081/61/000/022/067/076
B101/B147

AUTHOR: Sudareva, V. Ya.

TITLE: Hollow foam plastics

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 449, abstract
22P51 (Sb. "Penoplastmassy", M., Oborongiz, 1960, 50 - 52)

TEXT: Production methods for plates of "hollow" foam plastics (FP) (FP with openings) have been developed to reduce the weight of FP and the consumption of initial components, and to facilitate the use of FP in constructions. For producing hollow FP, the mixture of the polymer with the gas producer is filled into a mold in two stages. The first half was filled in and leveled; the guide grooves on the mixture were formed by a rammer and the reinforcing metal was placed into the grooves. Then, the second half of the mixture was filled in, and the molding was performed. The molded plate with the rods was placed in a steam chamber, and foamed at 98 - 100°C. The rods may be removed from the plate during or after foaming. Finished FP has the same structure as compact FP, but its volume by weight is 40 - 50% smaller. In the case of bending and compression, the use of reinforced hollow FP proved to be most suitable; the Card 1/2

Hollow foam plastics

31569
S/081761/000/022/067/076
B101/B147

hollows should be arranged along the reinforcing elements. Like compact FP, also hollow FP may be used for constructions as reinforcing filler which reduces price and weight of the construction. [Abstracter's note: Complete translation]

X

Card 2/2

SUDAREVA, Ye.A., inzh.; AZIZOV, I.A., inzh.

Dependence of short-term mechanical and heat resistance characteristics
of 12KhMF steel on thermal treatment and microstructure. Elek. sta 36
no.6:32-33 Je '65. (MIRA 18:7)

USSR / General and Specialized Zoology. Insects. Harmful Insects and Acarids. Pests of the Technical, Oil, Medicinal and Essential-Oil Cultures. P

Abs Jour : Ref Zhur - Biol., No 18, 1958, No. 82966

Author : Sudareva, Ye. P.

Inst : Uzbek University

Title : Soil Acarids of the Cotton Fields

Orig Pub : Tr. Uzb. un-ta, 1957, vyp. 67, 93-111

Abstract : For the Samarkandskaya Oblast, it is established that in the soil, vegetable rubbish and on weed roots, there are stored acarids, which are dangerous for the germinating seeds and the sprouts of irrigated cotton plants. Ten species of thyroglyphic acarids, as well as scale and certain other mites, are recorded. The indicated acarids are in the soil during the entire winter, but their numbers multiply in April and October.

Card 1/2

SUDAREVA, Ye.P.

Oribatid mites in cotton and alfalfa fields of Samarkand Province.

Trudy UzGU no. 87:163-182 '59.

(MIRA 14:5)

(Samarkand Province—Mites)

(Field crops—Diseases and pests)

GAVEZ, E.; SUDARIC, F.; STIPANCEVIC, L.

Tuberculosis (postprimaria?) scroti of the stallion. Tuberkuloza,
Beogr. 11 no. 4:447-450 O-D '59.

1. Patoloski institut Veterinskog fakulteta, Sarajevo (sef: prof.
dr E. Gavez.)
(TUBERCULOSIS MALE GENITAL veterinary)
(HORSES dis.)

SUDARIKOV, A.

USSR/Radio - Fault Detectors
Cable

Oct 51

"Locating a Fault in an Underground Cable With the
Help of the Rodina Receiver," A. Sudarikov, Stalin-
skoye, Frunze Oblast

"Radio" No 10, p 54

Describes changes which must be made in Rodina
receiver in order to use it to locate faults in
underground cable. Methods permits opens and shorts
in either of the 2 wires to be located exactly,
while grounds can be located to within about 0.5 m.

208760

SUDARIKOV, A.A.

ABRAMOV, V.A.; ALEKSEYEV, A.M.; AL'TER, L.B.; ARAKELIAN, A.A.; BAKLANOV, G.I.;
 BASOVA, I.A.; BLYUMIN, I.G.; BOGOMOLOV, O.T.; BOR, M.Z.; BREDEL',
 E.Ya.; VYETSMAN, N.R.; VIKENT'YEV, A.I.; GAL'TSOV, A.D.; GERTSOVSKAYA,
 B.R.; GLADKOV, I.A.; DVORKIN, I.N.; DRAGILEV, M.S.; YEFIMOV, A.N.;
 ZHAMIN, V.A.; ZHUK, I.N.; ZAMYATNIN, V.N.; IGNAT'YEV, D.I.; IL'IN,
 M.A.; IL'IN, S.S.; IOFFE, Ya.A.; KAYE, V.A.; KAMENITSER, S.Ye.;
 KATS, A.I.; KLIMOV, A.G.; KOZLOV, G.A.; KOLGANOV, M.V.; KONTOROVICH,
 V.G.; KRAYEV, M.A.; KRONROD, Ya.A.; LAKHMAN, I.L.; LIVANSKAYA, F.V.;
 LOGOVINSKAYA, R.L.; LYUBOSHITS, L.I.; MALYSH, A.I.; MENZHINSKIY,
 Ye.A.; MIKHAYLOVA, P.Ya.; MOISEYEV, M.I.; MOSKVIN, P.M.; NOTKIN,
 A.I.; PARTIGUL, S.P.; PERVUSHIN, S.P.; PETROV, A.I.; PETRUSHOV, A.M.;
 PODGORNOVA, V.M.; RABINOVICH, M.A.; RYVKIN, S.S.; RYNDINA, M.N.;
 SAKSAGANSKIY, T.D.; SAMSONOV, L.N.; SMEKHOV, B.M.; SOKOLIKHIN, S.I.;
 SOLLERTINSKAYA, Ye.I.; SUDARIKOV, A.A.; TATAR, S.K.; TERENT'YEV,
 P.V.; TYAGAY, Ye.Ya.; FEYGIN, Ya.G.; FIGURNOV, P.K.; FRUMKIN, A.B.;
 TSYRLIN, L.M.; SHAMBERG, V.M.; SHAPIRO, A.I.; SHCHENKOV, S.A.;
 FYDML'MAN, B.I.; MKHIN, P.E.; MITROFANOVA, S., red.; TROYANOVSKAYA, N.,
 tekhn.red.

[Concise dictionary of economics] Kratkiy ekonomicheskii slovar'.
 Moskva, Gos.izd-vo polit.lit-ry, 1958. 391 p. (MIRA 11:7)
 (Economics--Dictionaries)

SUDARIKOV, A.A., inzh.

Technical and economic efficiency of new types of ceilings.

Trudy MIEI no.9:174-188 '58.

(MIRA 11:6)

(Ceilings)

ONISHCHIK, L.I., doktor tekhn.nauk, prof.; YELKIN, A.V., dotsent;
SMIRNOV, B.A., kand.tekhn.nauk; MANDRIKOV, A.P., kand.tekhn.
nauk; SHLEINA, L.A., kand.tekhn.nauk; SUDARIKOV, A.A., inzh.

Increasing technical and economic effectiveness of basic de-
signs of standard apartment houses. Trudy MIEI no.14:41-101
'59. (MIRA 13:1)

1. Moskovskiy inzhenerno-ekonomicheskoy institut. 2. Daystvitel'-
nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for
Onishchik).
(apartment houses) (Architecture--Designs and plans)

SUDARINOV, A.B., Chief Tech Sci--(41-) "Study of the effect of
the ~~air~~ ^{water} ~~in~~ ⁱⁿ the ~~intake~~ ^{intake} and the ~~temperature~~ ^{temperature} of
cooling water on the power and efficiency of 12-cylinder engines."
Gosiz, 1957. 14 pp with graphs (Vis of ~~diver~~ ^{Fleet} ~~ship~~ ^{ship} ~~RS.32.~~ ^{RS.32.}
Gosiz, 1957. ^{Enclosure of} ~~Ship 2~~ ^{Ship 2} ~~Chair of~~ ^{Chair of} ~~Transport~~ ^{Transport} ~~for~~ ^{for} ~~the~~ ^{the} ~~ship~~ ^{ship} ~~RS.32.~~ ^{RS.32.}
1957, 100 copies (11,22-57,110)

SUDARIKOV, A.S., inzh.

Establishing the optimum temperature pattern for cooling the 18D
engine. Rech.transp. 18 no.6:30-32 Je '59. (MIRA 12:9)
(Marine diesel engines--Cooling)

SUDARIKOV, A.S., kand.tekhn.nauk

Modernizing the cooling system of the main engines on the motor-
ship "Bol'shaia Volga." Trudy GPI 15 no.1:101-107 '61 [i.e. '59].
(MIHA 15:11)

(Marine engines--Cooling)

ZVYAGINTSEV, O.Ye.; SUDARIKOV, B.N.

Complex metal salicylates. Part 1. Izv.Sekt.plat.i blag.met. no.31:
78-94 '55. (MIRA 9:5)

(Salicylates) (Compounds, Complex)

Sudarikov, B.N.

Complex electrolytes of various types. N. U. Sudarikov

1 3

4
6
0

UDATIKOV B N

USSR/Inorganic Chemistry - Complex Compounds.

C.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30297

Author : Sudarikov, B.N., Smirnov, L.M.

Inst :

Title : Complex Titanium Salicylates.

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 10, 2327-2336

Abst : On interaction of a sulfuric acid solution of $Ti(4+)$ with NH_4 -salicylate or Na-salicylate, in weakly acidic, neutral or weakly alkaline media, there are formed yellow powders having the empirical formulas $NH_4TiSal_3 \cdot 4H_2O$ (I) (biaxial crystals in the form of elongated hexagons; angles of extinction of about 30° ; $n_1 = 1.746$, $n_2 =$ about 2) and $NaTiSal_3 \cdot 3H_2O$ (II) (crystals in the form of elongated hexagonal prisms; $n_1 = 1.738$; $n_2 = 1.780$), wherein Sal -- ion of salicylic acid. On the basis of the results of titration of solutions of I and II with solutions of NH_3 , or of alkali,

Card 1/2

USSR/Inorganic Chemistry - Complex Compounds.

C.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30297

determination of apparent molecular weight of II, data of thermal analysis of I, and determination of molecular conductance of solutions of I and II, the authors attribute to I and II the structural formulas

$$\text{NH}_4\text{Sal}^- \cdot [\text{Ti}(\text{Sal}^{2-})_2] \cdot 4\text{H}_2\text{O} \text{ and } \text{NaSal}^- \cdot [\text{Ti}(\text{Sal}^{2-})_2] \cdot 3\text{H}_2\text{O}.$$

The salicylate II is considerably more stable than I, and is not hydrolyzed, in aqueous solution, for a long time. Heating of I at 180° results in a complete elimination of the water of crystallization. Further increase of temperature, to 240-250°, results in the formation of $\text{Ti}(\text{Sal}^{2-})_2$ (crystals of rhombohedral form with extinction angles of 25, 9 and 0°; n_D about 1.736, n_A about 1.761). Concentration of Ti^{4+} in the filtrate, on precipitation of I or II, is determined primarily by pH value of the medium and the temperature. At pH 4 a rise of the temperature results in a sharp increase of the solubility of I and II.

Card 2/2

SUDARIKOV, B.N., ZVYAGINTSEV, O.Ye.

"Salicylates of Uranium and Thorium," by O. Ye. Zvyagintsev and B. N. Sudarikov, Moscow Order of Lenin Chemicotechnological Institute imeni D. I. Mendeleyev, Zhurnal Neorganicheskoy Khimii, Vol 2, No 1, Jan 57, pp 128-137

It was established that from weakly acidic solutions which contain ammonium salicylate, hexavalent uranium precipitates in the form of orange-colored prisms which have the composition $\text{NH}_4 [\text{UO}_2 (\text{Sal}^-)_3] \cdot 4 \text{H}_2\text{O}$. The solubility of uranyl ammonium trisalicylate in solutions of NH_4Sal^- was determined and its dependence on the pH , the concentration of Sal^- ions, and the temperature established. Titration tests demonstrated that in an alkaline solution containing Sal^- ions hexavalent uranium is present in the form of $[\text{UO}_2 (\text{Sal}^{2-})_3]^{4-}$ ions. The conditions have been determined under which stable aqueous solutions of this complex anion are formed and no decomposition of the anion takes place on heating.

SUM. I287

By using as a radioactive tracer a thorium isotope with the half-life of 24.6 days, the solubility of the thorium salicylate $\text{ThO}(\text{Sal})_2$ in water and in solutions of ammonium salicylate was determined and its dependence on the temperature, the pH , and the concentration of ammonium salicylate established. The concentrations of thorium in the filtrate were determined after precipitation of this element in the form of its salicylate and the changes in this concentration correlated with the conditions mentioned above. The data obtained in this manner were applied in the separation of thorium from uranium by the salicylate method.

It is pointed out that the salicylate method also serves for the analytical separation of uranium from rare earths and that this separation is based on the different tendencies of uranyl and of the rare earths to form complexes with salicylic acid.

SUDARIKOV, B. N.

AUTHORS: Sudarikov, B. N. and Busarov, Yu. P.

78-3-33/35

TITLE: Behaviour of Pentavalent Niobium to Salicylic and Sulphosalicylic Acids. (Otnosheniye pyativalentnogo niobiya k salitsilovoy i sul'fosalitsilovoy kislota.)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1957, Vol.II, No.3, pp. 702-703. (USSR)

ABSTRACT: In this investigation the behaviour of niobium sulphate towards salicylic acid and ammonium salicylate, and also of niobium sulphate, chloride and oxalate to sulphosalicylic acid and to ammonium sulphosalicylate has been investigated. There is 1 table and 1 Slavic reference.

ASSOCIATION: Moscow Chemical-Technological Institute, imeni D. I. Mendeleev. (Moskovskiy ordena Lenina Khimiko-Tekhnologicheskii institut im. D. I. Mendeleeva)

SUBMITTED: 13 December, 1956.

AVAILABLE: Library of Congress.
Card 1/1

SUDARIKOV, B.N.
ZVYAGINTSEV, O.Ye.; SUDARIKOV, B.N.

Plutonium salicylates. Zhur.neorg.khim. 3 no.4:975-985 Ap '58.
(MIRA 11:4)

(Salicylates) (Plutonium compounds)

5(2)

AUTHORS:

Sudarikov, B. N., Zaytsev, V. A., Puchkov, Yu. G.

SOV/156-59-1-19/54

TITLE:

The Extraction of the Salicylates of Scandium, Yttrium, Cerium, Lanthanum, Uranium, and Thorium (Ekstraktsiya salitsilatov skandiya, ittriya, tseriya, lantana, urana i toriya)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1959, Nr 1, pp 80 - 83 (USSR)

ABSTRACT:

The work is an attempt to attain the separation of the elements mentioned by means of the extraction taking place with complex formation. The extraction was controlled by the radioactive isotopes Sc^{46} , Y^{90} , Ce^{141} , La^{140} , and Th^{234} . Salicylic acid was chosen because it easily forms complex compounds with metals and is readily soluble in organic solvents. Isoamyl alcohol was used as a solvent. The distribution coefficient K of salicylates between the aqueous and organic phase was checked in dependence on the pH of the solution (Diagram). The following substances were quantitatively extracted: scandium salicylate at pH values between 3.3 - 5.5; yttrium salicylate at pH

Card 1/2

The Extraction of the Salicylates of Scandium, Yttrium, Cerium, Lanthanum, Uranium, and Thorium SOV/156-59-1-19/54

values higher than 4, lanthanum salicylate at pH values higher than 4.5; cerium salicylate at pH values higher than 5.0 and thorium salicylate at pH values higher than 3.0. Uranium salicylate was extracted between pH 2.5 to 5.5, with higher pH values, however, a crystalline precipitate is formed which was analyzed as $\text{NH}_4 \text{UO}_2(\text{HSal}^-)_3 \cdot 4\text{H}_2\text{O}$. A

straight line with the tangent of the inclination angle = 2 resulted from the coordinate system $\lg(\kappa) - \lg(\text{H}^+)$ with a constant salicylic acid concentration and from the system $\lg(\kappa) - \lg(\text{HSal})_{\text{org}}$ at a constant pH = 2.2. Thus 2 H^+ ions

are emitted in the reaction with salicylic acid. There are 3 figures and 10 references, 3 of which are Soviet.

ASSOCIATION: Kafedra tekhnologii radioaktivnykh i redkikh elementov Moskovskogo khimiko-tekhnologicheskogo instituta im. D.I. Mendeleeva (Chair of the Technology of Radioactive and Rare Elements of the Moscow Institute of Chemical Technology imeni D.I. Mendeleev)

SUBMITTED: June 28, 1958
Card 2/2

84896

S/089/60/008/006/022/023/XX
B006/B063

21.3200

AUTHORS: Galkin, N. P., Sudarikov, B. N., Zaytsev, V. A.

TITLE: Interaction Between Uranium Hexafluoride and Ammonia ✓

PERIODICAL: Atomnaya energiya, 1960, Vol. 8, No. 6, pp. 530 - 534

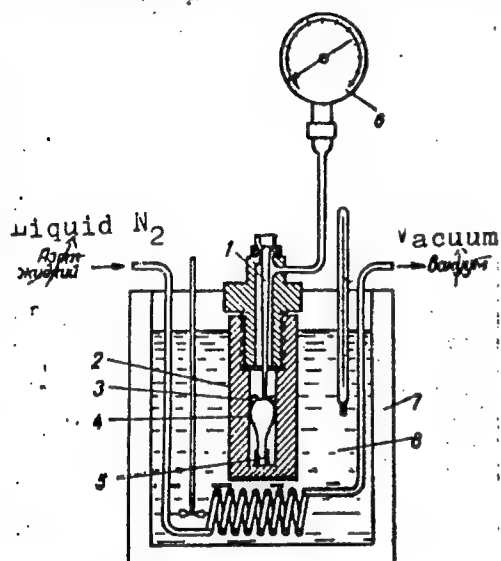
TEXT: The authors studied the interaction between uranium hexafluoride and ammonia in the temperature range from -50 to +200°C for the purpose of determining the reaction equations at different temperatures and measuring the rates and thermal effects of the reactions. The reaction of uranium hexafluoride with liquid and gaseous ammonia was examined with an apparatus schematically shown in Fig.1: ✓

Card 1/6

/ 84896

Interaction Between Uranium Hexafluoride
and Ammonia

S/089/60/008/006/022/023/XX
B006/B063



- 1 - distributor, 2 - reaction bomb,
3 - solid UF₆, 4 - quartz ampoule
containing liquid NH₃, 5 - holder
of the ampoule, 6 - pressure gauge,
7 - Dewar, 8 - solutions of NH₄Cl,
NaCl, ZnSO₄, CaCl₂, etc.

Fig.1

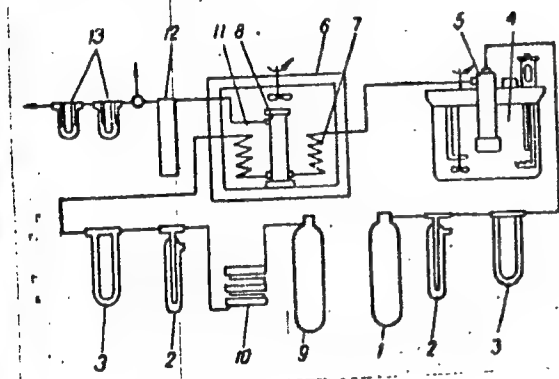
Card 2/6

04896

Interaction Between Uranium Hexafluoride and Ammonia

S/089/60/008/006/022/023/XX
B006/B063

The $UF_6 - NH_3$ reaction in the gaseous phase was examined with the apparatus shown in Fig. 2:



- 1 - flask filled with argon,
- 2 - manostat, 3 - flowmeter,
- 4 - water thermostat, 5 - UF_6
- vaporizer, 6 - air thermostat,
- 7 - UF_6 preheater, 8 - reactor,
- 9 - flask filled with ammonia,
- 10 - drying column filled with
- KOH, 11 - NH_3 preheater,
- 12 - condenser, 13 - trap.

Fig.2

Card 3/6

Interaction Between Uranium Hexafluoride and Ammonia

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S/089/60/008/006/022/023/XX
B006/B063

The thermal effect of the reaction was measured with a calorimeter shown in Fig.3:

- 1 - Dewar, 2 - outer wall of the calorimeter, 3 - inner wall of the calorimeter, 4 - mixer, 5 - heater, 6 - sleeve pipe made of heat-insulating material, 7 - distributor made of ebonite, 8 - quartz ampoule filled with liquid NH_3 , 9 - solid UF_6 , 10 - resistance thermometer, 11 - reaction bomb, 12 - heat insulator, 13 - NH_3 vaporizer, 14 - solutions of NH_4Cl , NaCl , ZnSO_4 , CaCl_2 , etc.

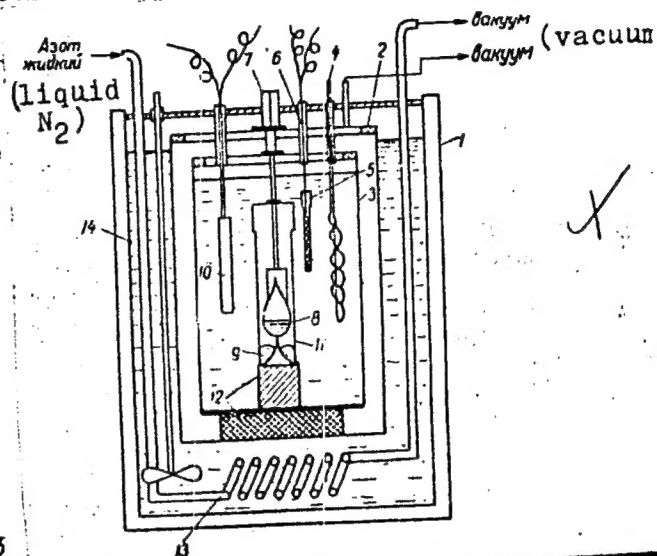


Fig.3

Card 4/6

84896

Interaction Between Uranium Hexafluoride
and Ammonia

S/089/60/008/006/022/023/XX
B006/B063

The entire reaction within the range $-50 - -30^{\circ}\text{C}$ can thus be described by equation $6\text{UF}_6 + (8+6n)\text{NH}_3 \rightarrow \text{UF}_5\text{NH}_3 + 6\text{NH}_4\text{F} + \text{N}_2$, where $n = 0.73$.

The following equations hold in the ranges $0 - +25^{\circ}\text{C}$ and $100 - 200^{\circ}\text{C}$, respectively: $4\text{UF}_6 + 8\text{NH}_3 \rightarrow 2\text{UF}_5 + 2\text{NH}_4\text{UF}_5 + 4\text{NH}_4\text{F} + \text{N}_2$ and

$3\text{UF}_6 + 8\text{NH}_3 \rightarrow 3\text{NH}_4\text{UF}_5 + 3\text{NH}_4\text{F} + \text{N}_2$. The calculated values are all compared with the experimental ones. The thermal effect observed between -50 and -30°C varies from 50.8 to 83.6 kcal/mole (cf. Table 2); at -40°C , it coincides with the value calculated from the reaction equation. Within the range -20 to $+20^{\circ}\text{C}$, the reaction rate was measured as a time function (Fig.4). The functions (-20° , 0° , $+20^{\circ}\text{C}$) are hyperbolic. There are 4 figures, 5 tables, and 9 references: 3 Soviet, 1 US, 2 German, and 1 British.

SUBMITTED: July 15, 1959

Card 6/6

PHASE I BOOK EXPLOITATION

SOV/5613

Shevchenko, Viktor Borisovich, and Boris Nikolayevich Sudarikov

Tekhnologiya urana (Uranium Technology) Moscow, Gosatomizdat, 1961. 329 p.
Errata slip inserted. 6,000 copies printed.

Ed.: M. A. Borisovskaya; Tech. Ed.: Ye. I. Mazel'

PURPOSE: This book is intended for students and aspirants at schools of higher education specializing in the technology of the natural radioactive elements, and can also be used by engineering, technical, and scientific workers in this and related fields.

COVERAGE: The book discusses technological processes in the production, dressing, and refinement of uranium ore to obtain metallic uranium and compounds of uranium used as nuclear fuel. Processing steps from the reduction of uranium ores to the refining and metallurgical stages are explained in turn. The remaining chapters deal with the chemical and physicochemical properties of the most important compounds of uranium and include a brief description of the geochemical characteristics of uranium ore. The author has based his

Card 1/7

Uranium Technology

SOV/5613

work on a lecture series entitled "Technology of the Natural Radioactive Elements" which he gave at the Moskovskiy ordena Lenina khimiko-tekhnologicheskii institut im. D. I. Mendeleeva (Moscow "Order of Lenin" Institute of Chemical Technology imeni D. I. Mendeleev) from 1958 to 1960. No personalities are mentioned. There are 92 references: 20 Soviet, 70 English, 1 Italian, and 1 German.

TABLE OF CONTENTS:

Ch. I. Introduction	5
1. Brief historical outline	5
2. Importance of uranium in nuclear power engineering	11
3. Compounds of uranium used as nuclear fuel	12
4. Nuclear purity of uranium	13
5. Synopsis of the characteristics of uranium ore	15
6. Basic steps in the technology of uranium production	16
Ch. II. Chemical and Physicochemical Properties of Metallic Uranium and of its Most Important Compounds	20
1. Place of uranium in D. I. Mendeleev's periodic system of elements	20

Card 2/7